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(54) **VISCOSITY STABILIZATION OF
 RADIATION-CURABLE FILLED
 COMPOSITIONS**

(75) **Inventors:** **Anastasios P. Melisaris**, Stevenson Ranch; **Stephen D. Hanna**, Santa Monica; **Thomas H. Pang**, Castaic, all of CA (US)

(73) **Assignee:** **Vantico Inc.**, Brewster, NY (US)

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 (58) **Field of Search** **522/100, 102, 522/103, 168, 170, 173, 178, 182, 71, 74, 75, 78, 79, 83; 430/269, 280.1, 281.1; 264/401**

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Primary Examiner—James J. Seidleck

Assistant Examiner—Sanza L. McClendon

(74) *Attorney, Agent, or Firm*—Lyon & Lyon LLP; Kristin H. Neuman; James H. Shalek

(57) **ABSTRACT**

The present invention relates to a process for the production of three-dimensional articles by stereolithography using a radiation-curable composition comprising a mixture of at least one cationically polymerizable compound and/or at least one free radical polymerizable compound, at least one filler material and at least one photoinitiator for cationic and/or radical polymerization. An organic viscosity stabilizer material may be brought into contact with the composition to substantially delay or prevent undesirable viscosity increase and subsequently premature polymerization. A filler material is optionally added to the composition in an effective amount to at least delay or prevent a significant increase in viscosity and polymerization. The process is particularly suitable for stabilizing resins in stereolithography baths. The present invention also relates to a cured articles resulting from said process and a process for manufacturing said radiation-curable compositions and stabilized compositions resulting therefrom.

33 Claims, No Drawings